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OFFICE ACTION	FILED DATE	ESTIMATED NEXT FILING DATE	APP. NO. / PCT NO.	OFFICE ACTION NO.
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EXAMINER

ABRAHAM HUSUM

APP. NO. PAPER NUMBER

DATE MAILED: 12/17/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/58,647

Examiner

Fetsum Abraham

Applicant(s)

N Kim et al

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION

- Extensions of time may be available under the provisions of 37 CFR 1.136(a) in certain cases; however, a reply must be filed no later than SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory maximum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any granted patent term adjustment. (See 37 CFR 1.704(b)).

Status

- 1) ☐ Responsive to communication(s) filed on 19/27/01.
- 2a) ☐ This action is **FINAL** 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-12 and 29-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-12 is/are allowed.
- 6) ☐ Claim(s) 29-33, 35, 36 and 46-48 is/are rejected.
- 7) ☐ Claim(s) 34, 37-45 and 49 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. (See 37 CFR 1.85(a)).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1 ☐ Certified copies of the priority documents have been received.
2 ☐ Certified copies of the priority documents have been received in Application No. _____.
3 ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1 ☐ Notice of References Cited (PTO-892)
2 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
3 ☐ Information Disclosure Statement(s) (PTO-1449, Paper No. s)
4 ☐ Interview Summary (PTO-413, Paper No. s)
5 ☐ Notice of Informal Patent Application (PTO-152)
6 ☐ Other

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Claims rejection

The election in paper no.3 has been acknowledged.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States

1. **Claims 29,31 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurosaki et al (6,104,462).**

The patent discloses a stagger type display switch in figure 3 with all the claimed elements including a gate wire (11) on a substrate, a gate insulation layer (12) on the wire, a semiconductor pattern (19) and ohmic contact regions respectively on the gate insulation layer, a data wire or source electrode (16) and a color filter (7) with a contact hole that places the pixel electrode (8) to form contact with the drain electrode (18).

As for claim 31, the passivation layer (22) covers the bottom part of the color filter (7) in figure 5, before the formation of the filter (7).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made

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Claim 30 is rejected under 35 U.S.C. 102(b) as being anticipated by Kurosaki et al (6,104,462) in view of Fujioka et al (6,124,917).

The primary reference is silent about the manufacturing method of the color filters. However, Fujioka discloses a screen printing applied color filters for the LCD matrix. Therefore it would have been obvious for one skilled in the art to use the method since it is one of the most basic and common way of making color filters.

2. **Claims 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurosaki et al in view of Kim (6,30,152).**

The primary reference may be silent about the passivation material but Kim clearly discloses an organic insulation for passivation display switches. Therefore, it would have been obvious to one skilled in the art to use such a material since it provides a reliable protection to active switches.

As for claim 33 the structure of Kurosaki is patterned to form a contact hole through the passivation layer and the color filter (see figure 5).

Claims 35-36,46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurosaki et al in view of Hong et al (6,130,443).

The primary reference is silent about a photosensitive conducting material for the data and gate lines, however, Hong discloses such materials (ITO) for the claimed elements. Therefore, it would have been obvious to one skilled in the art to use light sensitive materials as conductors

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since more current can be optically generated in the materials thereby enhancing line conductance. As a preliminary matter, light sensitive material is interpreted as any material that reacts to optical energy. In this pretext, a doped silicon or even an aluminum metal can be categorized as such since silicon is sensitive to radiation and aluminum is also sensitive to light and reacts by reflecting it.

As for claim 47, figure 5 of Kurosaki shows the claimed arrangement.

As for claim 48, both the passivation and the color filter of the primary reference are photosensitive.

Claims 34,37-45,49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-12 are allowed.

Any inquiry concerning this communication should be directed to Fetsum Abraham at telephone number (703) 305,3793, or by E-mail at *fetsum.abraham@uspto.gov*.

Any inquiry of a general nature or relating to the status of this application should be directed to the *SPE of AU*:2826 at (703)308-6601, or the *Group receptionist* at (703) 308-0956.

Fetsum Abraham

12/12/01

FETSUM ABRAHAM
PRIMARY EXAMINER